

FIGURE 1

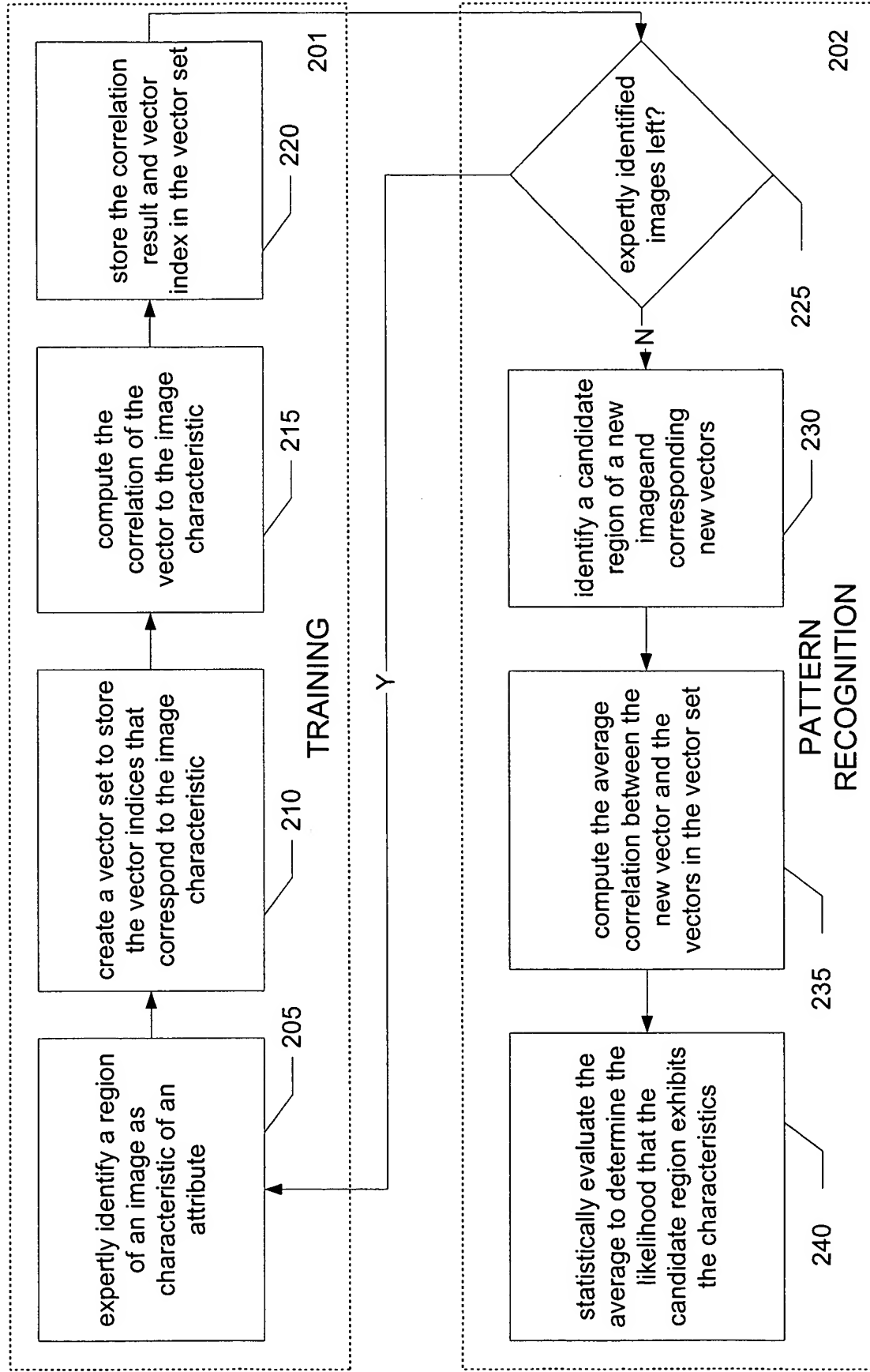
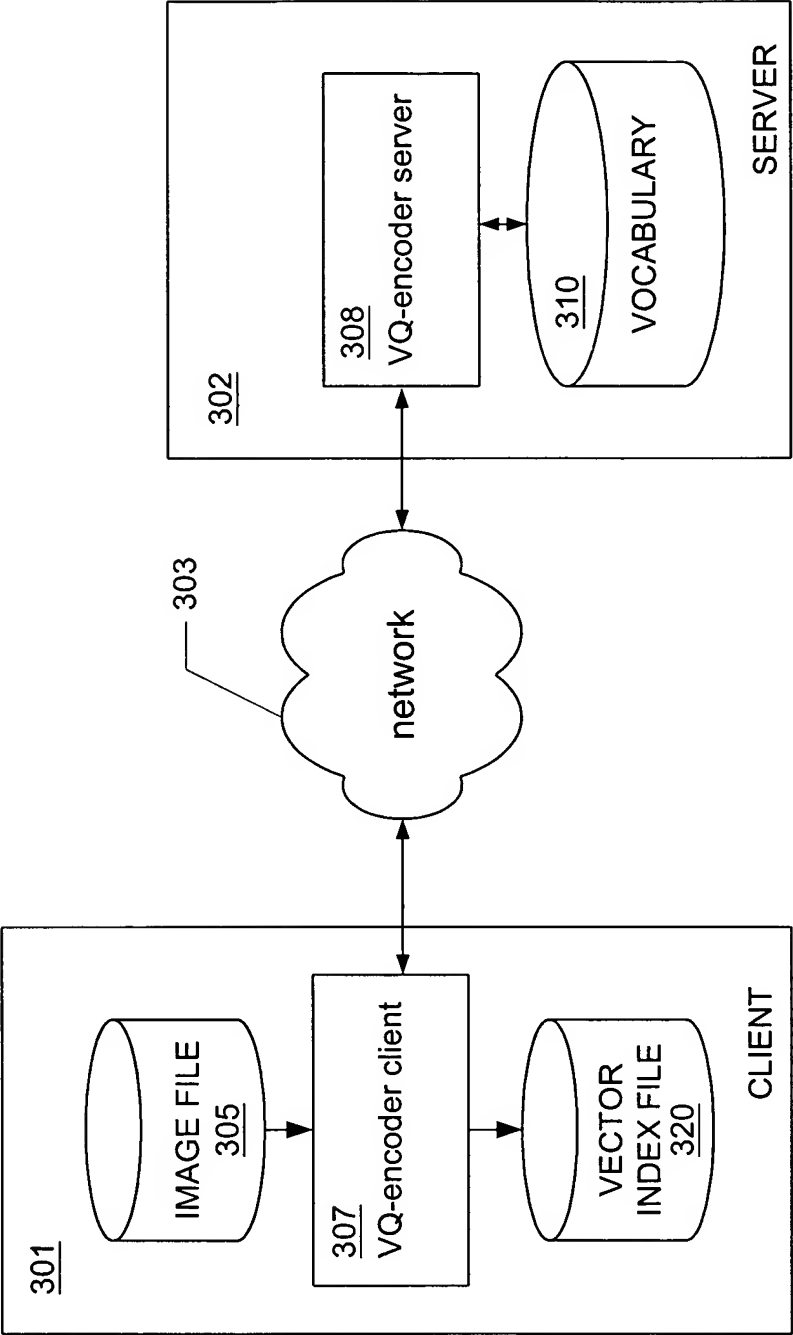


FIGURE 2



**FIGURE 3**

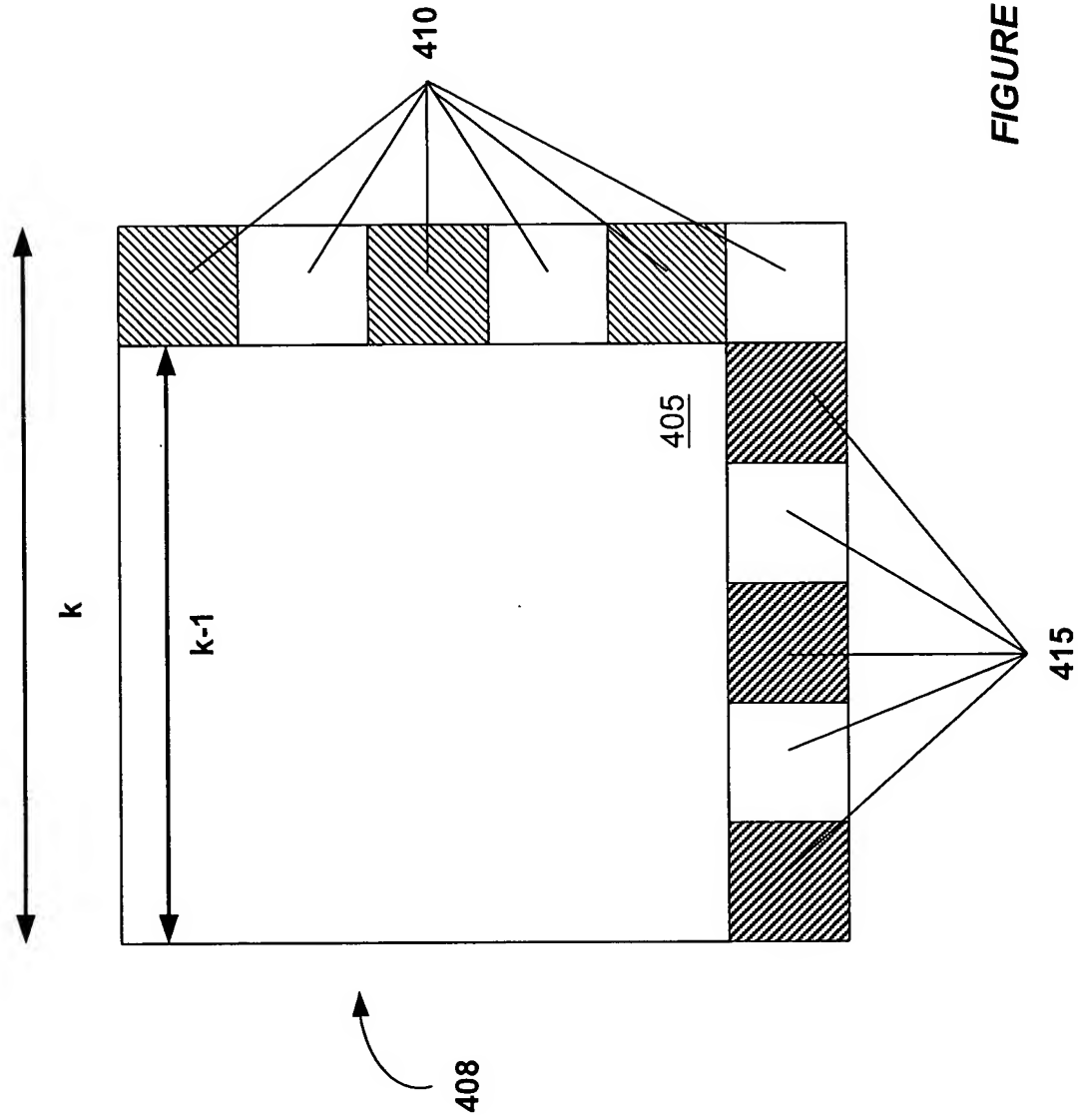


FIGURE 4

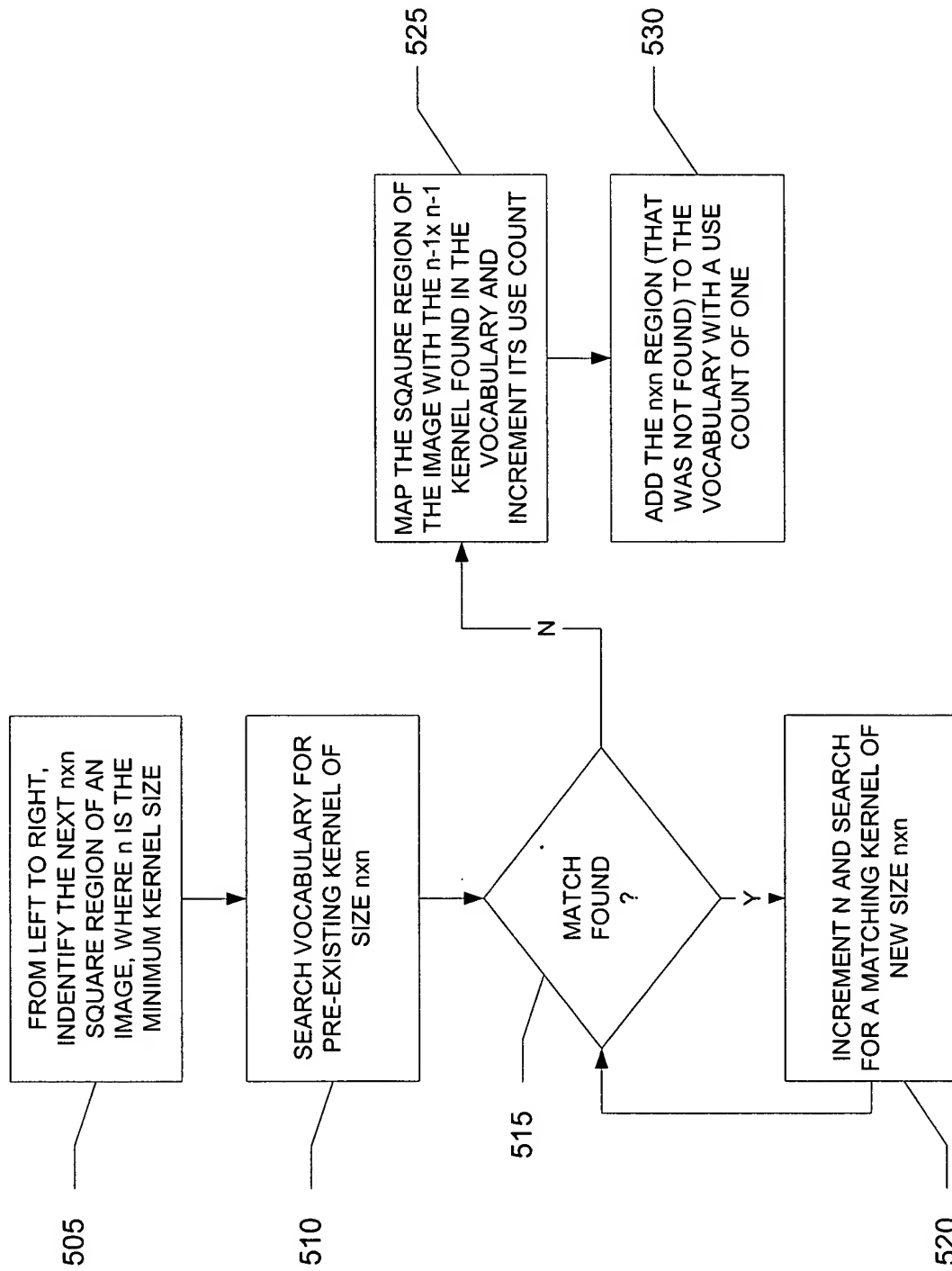


FIGURE 5

slide	JP2 KB	width	height	size Mp	size MB	comp	%tissue
vs439_20xn	230,818	39,230	33,546	1,255	3,765	16.7	70%
vs440_20xn	296,146	48,738	34,134	1,587	4,760	16.5	60%
vs441_20xn	215,070	37,339	34,369	1,224	3,672	17.5	70%
vs442_20xn	369,609	52,631	37,961	1,905	5,716	15.8	65%
vs443_20xn	118,670	29,667	26,488	749	2,248	19.4	60%
vs482_20xn	270,844	52,619	37,461	1,880	5,640	21.3	45%
vs483_20xn	149,627	35,429	31,703	1,071	3,214	22.0	45%
vs484_20xn	303,685	43,034	37,840	1,553	4,659	15.7	75%
vs485_20xn	278,714	49,734	39,962	1,895	5,686	20.9	45%
vs486_20xn	297,861	52,570	35,451	1,777	5,332	18.3	55%

JP2 KB

Width

Height

Size Mp

Size Mb

Comp

%tissue

- size of JPEG2000 file in Kbytes

- width of image in pixels

- height of image in pixels

- size of image in Mpixels

- size of image in Mbytes

- compression ratio (JP2 vs. image data)

- approximate %tissue on slide (vs. glass)

Table 0. Sample table of liver slides used for study

FIGURE 6

slide	VIF KB	comp	#vectors	ave vect	VCB MB	idx MB	#vectors	ave vect	idx time	enc time	tot time
vs439_20xn	121,702	31.7	31,148,155	6.5	818	520	59,181,494	3.2	0:00:00	0:09:23	0:09:23
vs440_20xn	128,042	38.1	32,770,657	7.1	964	559	68,244,628	3.4	0:17:25	0:10:58	0:28:23
vs441_20xn	110,050	34.2	28,165,796	6.7	1,069	586	75,800,102	3.3	0:18:49	0:10:09	0:28:58
vs442_20xn	153,772	38.1	39,355,871	7.1	1,220	625	86,035,088	3.4	0:19:50	0:12:56	0:32:46
vs443_20xn	54,584	42.2	13,970,124	7.5	1,281	640	89,555,559	3.4	0:21:16	0:09:24	0:30:40
vs483_20xn	24,997	131.6	6,397,753	13.2	2,876	944	168,756,512	4.9	0:38:40	0:21:15	0:59:55
vs484_20xn	45,119	105.7	11,547,703	11.8	2,889	944	169,092,117	4.9	0:38:50	0:22:51	1:01:41
vs485_20xn	42,609	136.7	10,905,185	13.5	2,906	945	169,378,378	4.9	0:39:00	0:24:04	1:03:04
vs486_20xn	42,270	129.2	10,818,519	13.1	2,921	945	169,633,289	5.0	0:39:12	0:23:54	1:03:06
vs487_20xn	18,242	168.7	4,668,846	15.0	2,939	946	169,731,334	5.0	0:39:22	0:21:50	1:01:12

Slide  
VIF KB  
Comp  
#vectors  
ave vect  
VCB MB  
Idx MB  
#vectors  
ave vect  
idx time  
enc time  
tot time

- name of slide
- size of vector index file in Kbytes
- compression ratio (VIF vs. image data)
- number of vectors in vector index file (number of kernels found in image)
- average size of vectors in vector index file (average size of kernels)
- size of vocabulary file after processing in Mbytes
- size of memory-resident index after processing in Mbytes
- number of vectors in vocabulary
- average size of vectors in vocabulary
- time required to load vocabulary index
- time required to encode image (after index loaded)
- total time required for processing (index time plus encode time)

FIGURE 7

Vocabulary Convergence

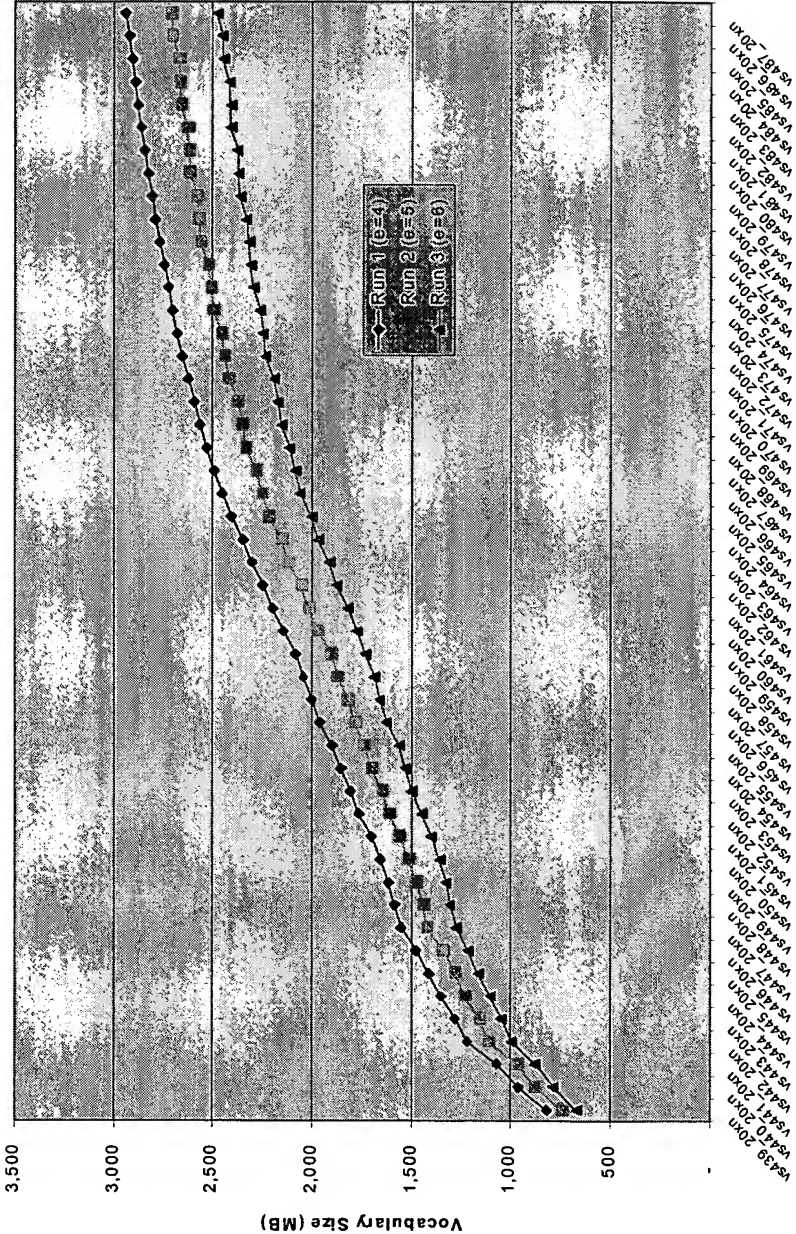


FIGURE 8



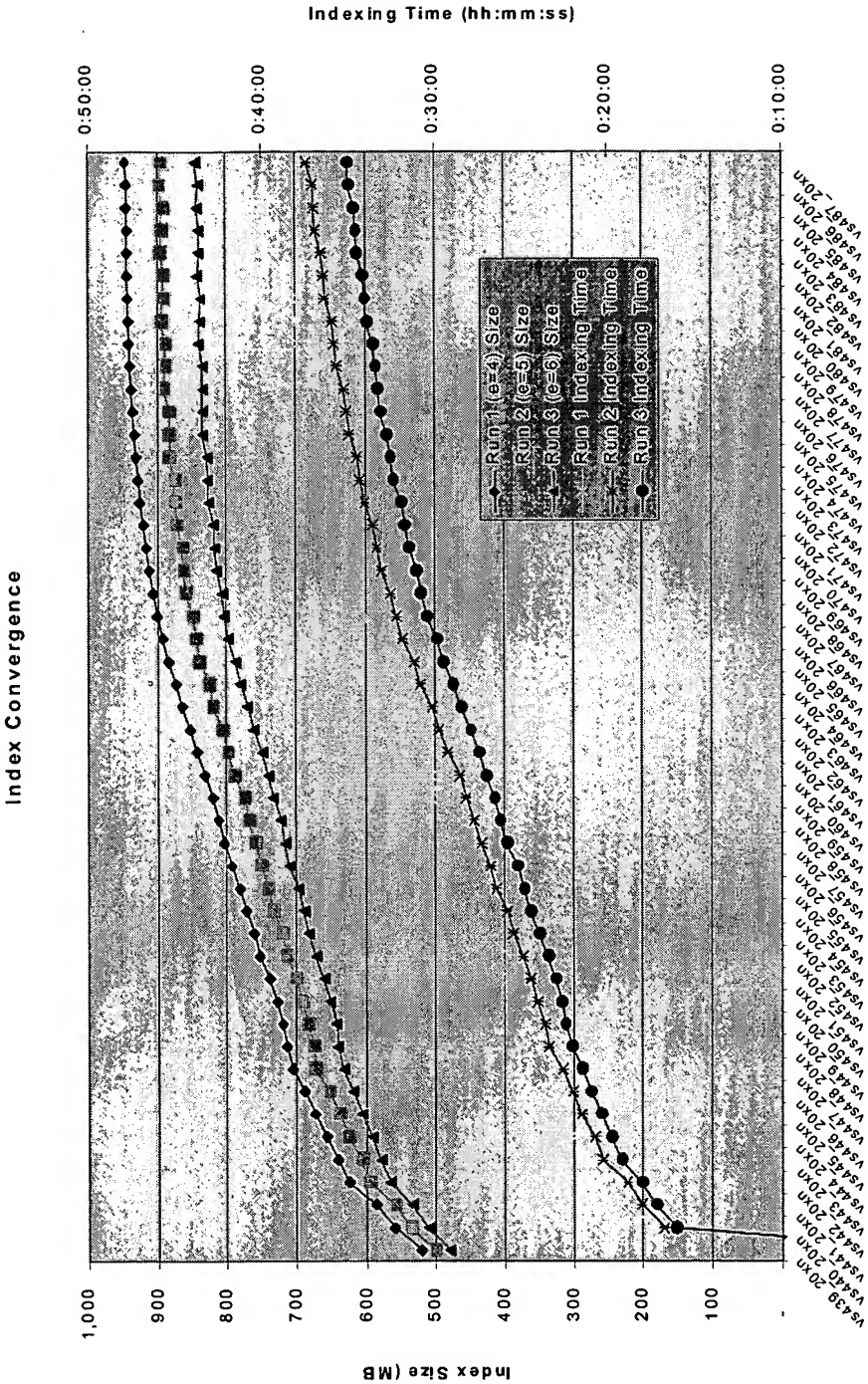


FIGURE 9

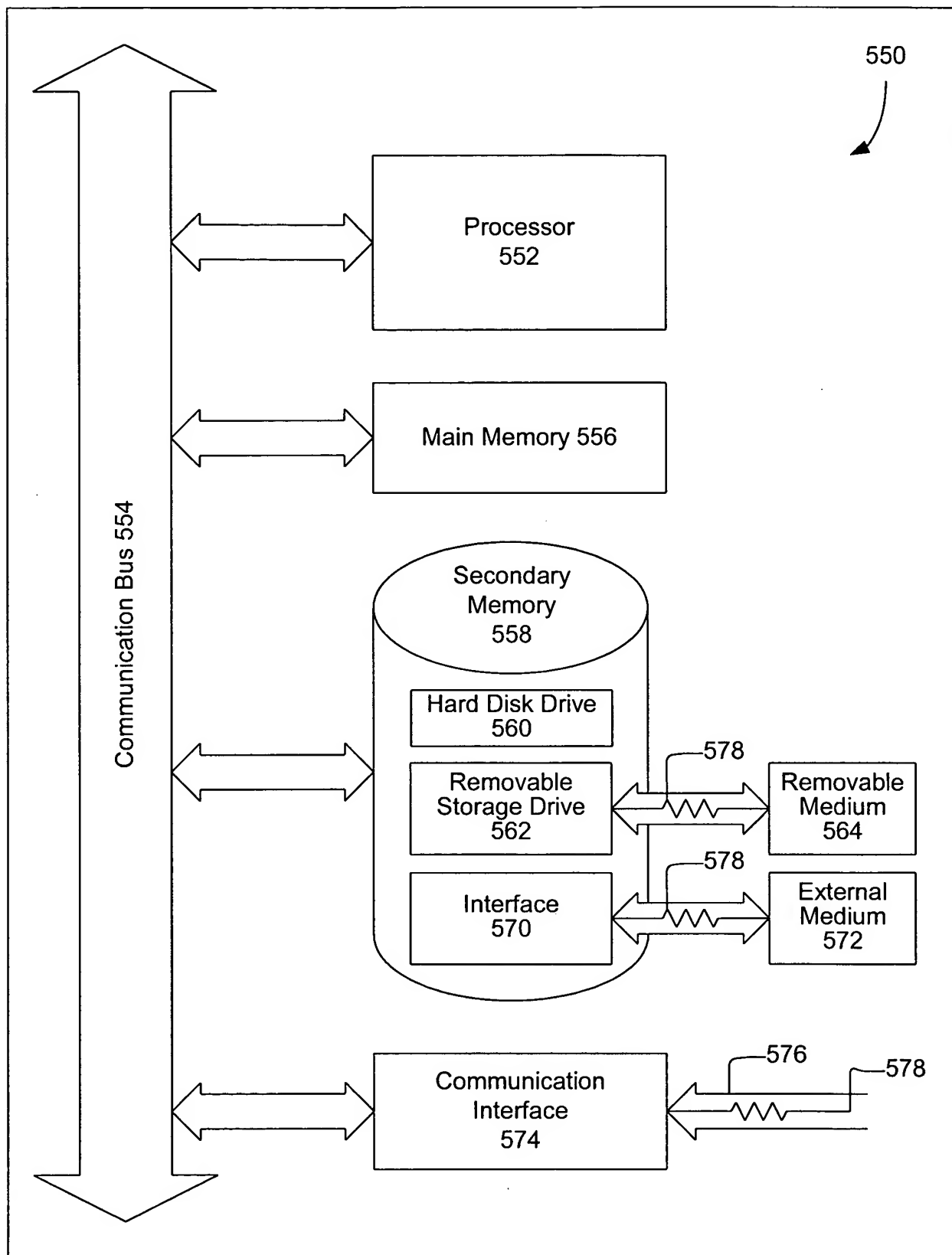


FIG. 10